CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory
An ISO 9001:2008 Certified Company
NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.:CTCE/BBMP/KRIDL/W.No.13/GSB-2/2017-18 19.03.2018

TEST REPORT ON GRADATION FOR CLOSE-GRADED GRANULAR SUB BASE

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of work	:	Improvements of Asphalting at BHEL Mini Colony surrounding area in Mallasandra Ward No.13, Shettyhalli, Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/222/2017-18 Dated:07.02.2018
* Sample ID	:	Close Graded-II
Technical Reference	:	IS : 2720 (Part - 4) 1985 (RA-2010), MORTH Table : 400-1
Date of Testing	:	19.03.2018

Oven Dry Wt (gm) : 5000

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
53	0	0	0	100	100
26.5	355	355	7.10	92.90	70-100
9.5	1655	2010	40.20	59.80	50-80
4.75	685	2695	53.90	46.10	40-65
2.36	640	3335	66.70	33.30	30-50
0.425	650	3985	79.70	20.30	15-25
0.075	665	4650	93.00	7.00	3-10
PAN	350				
Total	5000				

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* Information is furnished by the Customer/Representative

Remarks: Satisfies MORTH Specifications as per Table 400-1, Grading II

Note:

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2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

AE-13
ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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Basaveshwaranagar, Bangalore-560 079.

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JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/KRIDL/W.No.13/GSB-II/AL/2017-18 19.03.2018

TEST REPORT ON ATTERBERG LIMITS TEST FOR GRANULAR SUB BASE

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of work	:	Improvements of Asphalting at BHEL Mini Colony surrounding area in Mallasandra Ward No.13, Shettyhalli, Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/222/2017-18 Dated:07.02.2018
* Sample ID	:	GSB (Close Graded-II)
Technical Reference	:	IS : 2720 (Part - 5) 1985 (RA-2010), MORTH Table : 400-1
Date of Testing	:	19.03.2018

Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	23.15	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

* Information is furnished by the Customer/Representative

Remarks: Satisfies MORTH Specifications as per Table 400-1, Grading II

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ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ಬಾಪೂಜಿ ನಗರ
ಪೂರ್ವ ವಿಭಾಗದ ಮೆಜೆಸ್ಟಿಗ ವಲಯ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/Gradation/2017-18 22.03.2018

TEST REPORT ON GRADATION OF WET MIX MACADAM

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements of Asphalting at BHEL Mini Colony surrounding area in Mallasandra Ward No.13, Shettyhalli, Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/222/2017-18 Dated:07.02.2018
Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS 2386 (part-1)1963 (RA-2011)
Date of Testing	:	22.03.2018

Oven Dry Wt (gm): **5000**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits As per Morth Table 400-13
53	0	0	0	100	100
45	150	150	3.0	97.0	95-100
22.4	1450	1600	32.00	68.00	60-80
11.2	1250	2850	57.00	43.00	40-60
4.75	615	3465	69.30	30.70	25-40
2.36	525	3990	79.80	20.20	15-30
0.600	420	4410	88.20	11.80	8-22
0.075	415	4825	96.50	3.50	0-8

*Information is furnished by the Customer/Representative.

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/AIV/2017-18 22.03.2018

TEST REPORT ON IMPACT VALUE OF AGGREGATE

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements of Asphalting at BHEL Mini Colony surrounding area in Mallasandra Ward No.13, Shettyhalli, Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/222/2017-18 Dated:07.02.2018
* Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS : 2386(Part -4)-1963 (RA-2011)
Date of Testing	:	22.03.2018

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	375	382	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	80	90	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	295	292	
4	Aggregate Impact value = percent fines 100* (W2/W1)%	21.33	23.56	22.45

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Aggregate Impact value for Wet Mix Macadam is 30%

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/Shape.T/2017-18 22.03.2018

TEST REPORT ON FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

*** Customer**	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP Bangalore.
*** Agency**	:	**Technical Manager (West),** KRIDL, Bangalore.
*** Name of Work**	:	Improvements of Asphalting at BHEL Mini Colony surrounding area in Mallasandra Ward No.13, Shettyhalli, Sub Division, BBMP, Bangalore.
*** Reference**	:	BBMP/EE/DD/WO/222/2017-18 Dated:07.02.2018
*** Sample ID**	:	Wet Mix Macadam
Technical Reference	:	IS 2386(Part 1) 1963 (RA 2011)
Date of Testing	:	22.03.2018

Sl.No.	Description	Result
1	Flakiness Index	12.50%
2	Elongation Index	13.05%
3	Combined Flakiness & Elongation Index	25.55%

*Information is furnished by the Customer/Representative.

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Comments:

→ Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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